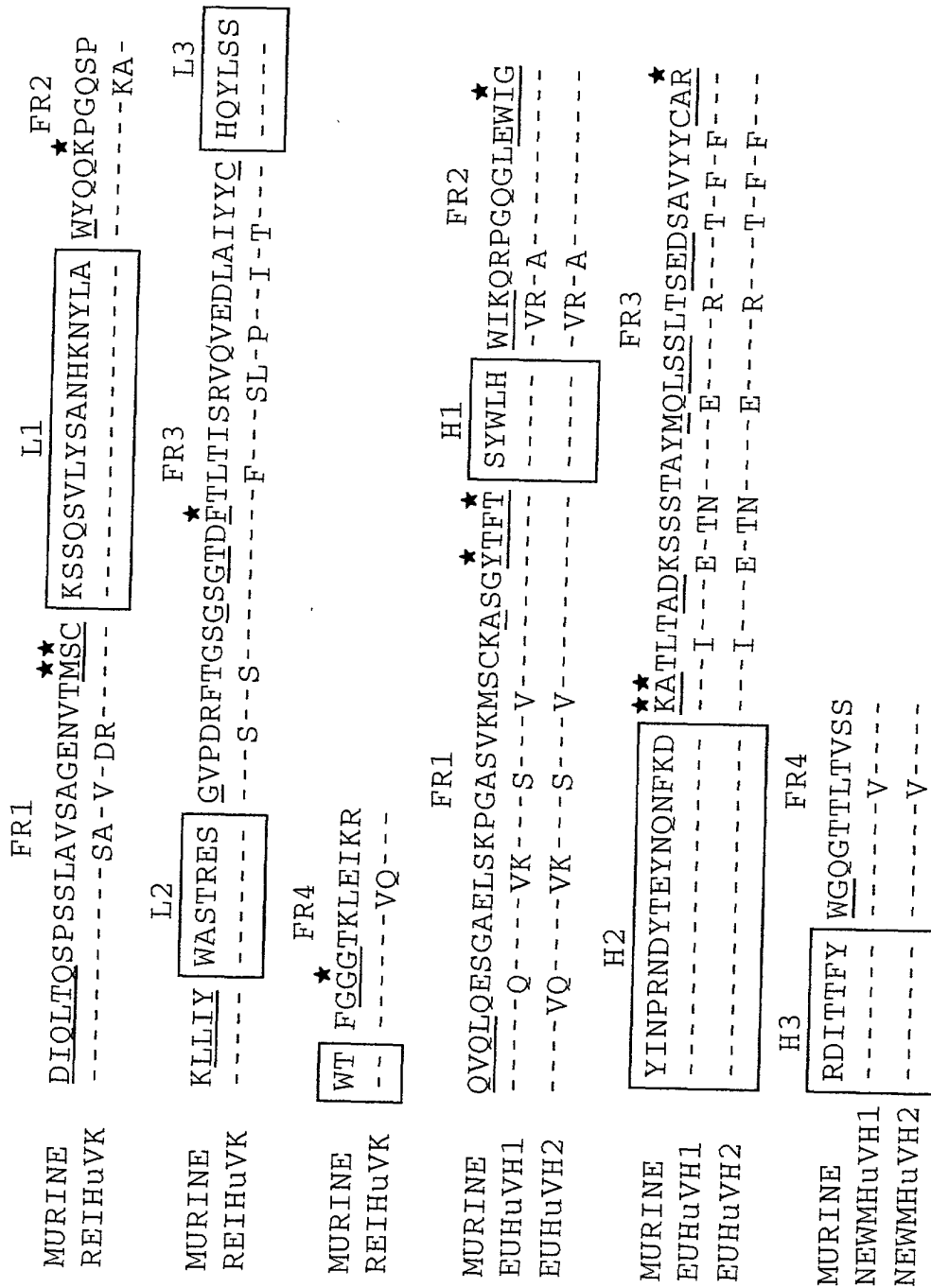
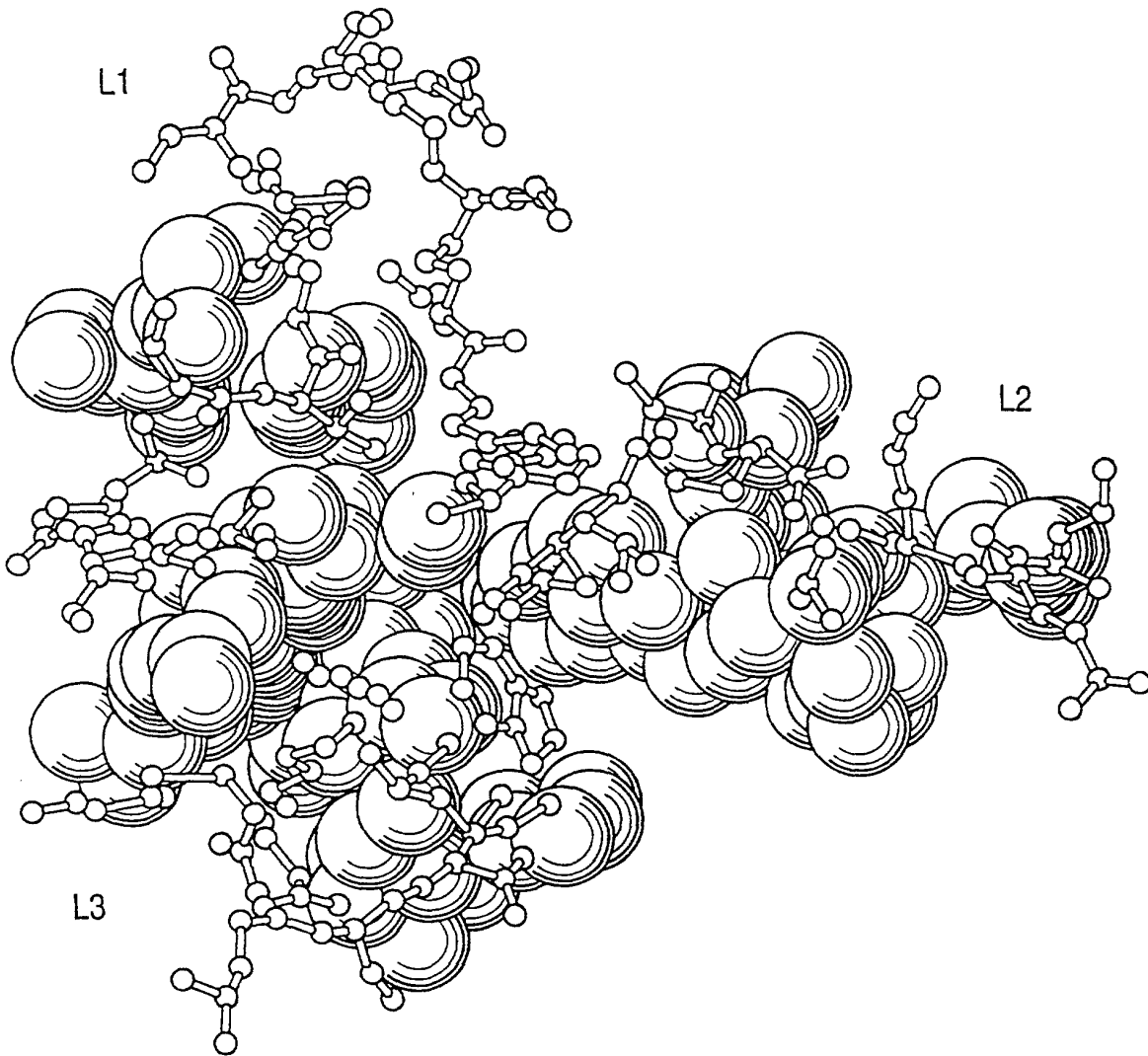


FIG. 1



**FIG. 2A**

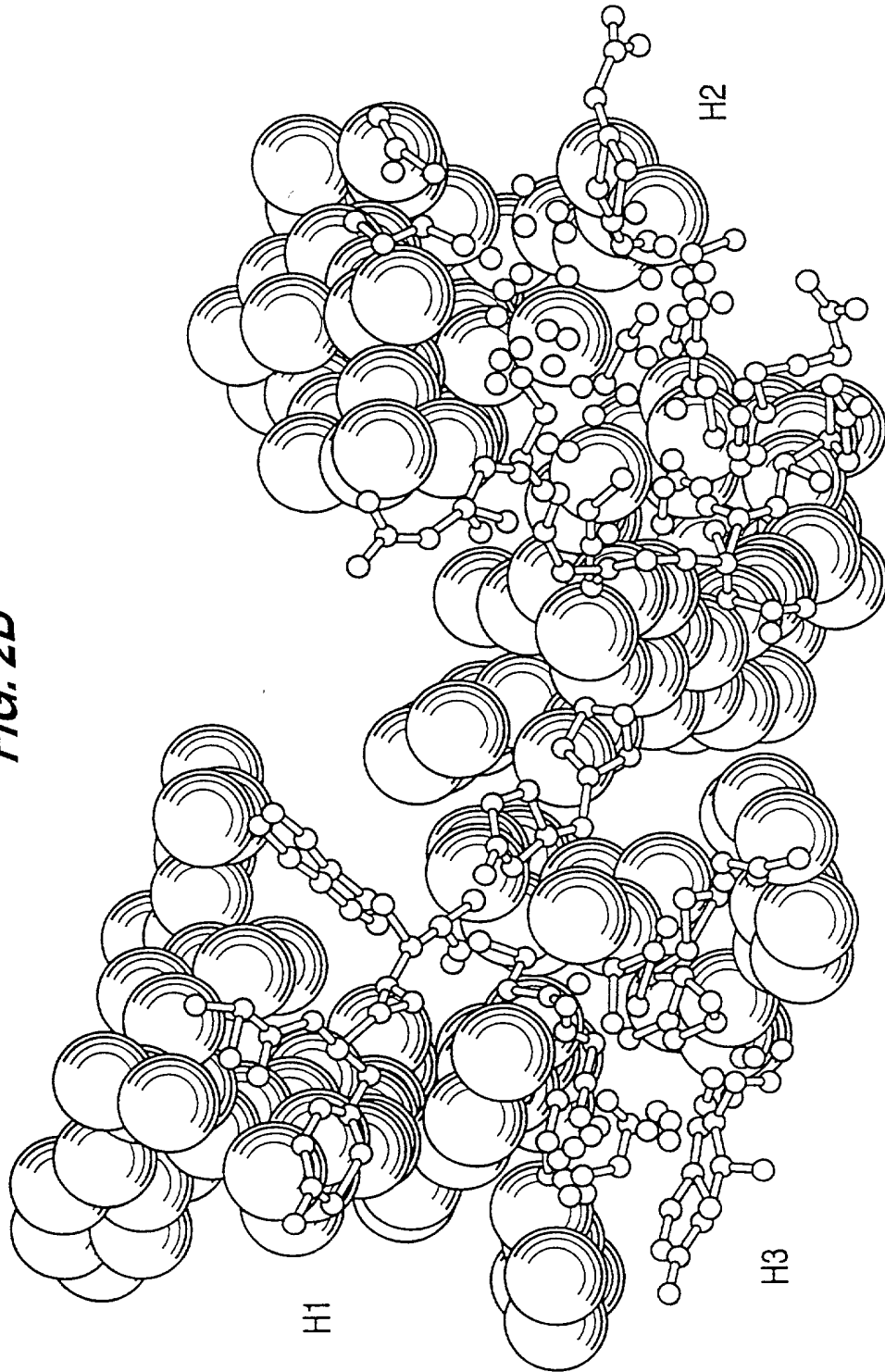


Title: IMMUNOCONJUGATES AND  
HUMANIZED ANTIBODIES SPECIFIC  
FOR B-CELL LYMPHOMA AND  
LEUKEMIA CELLS

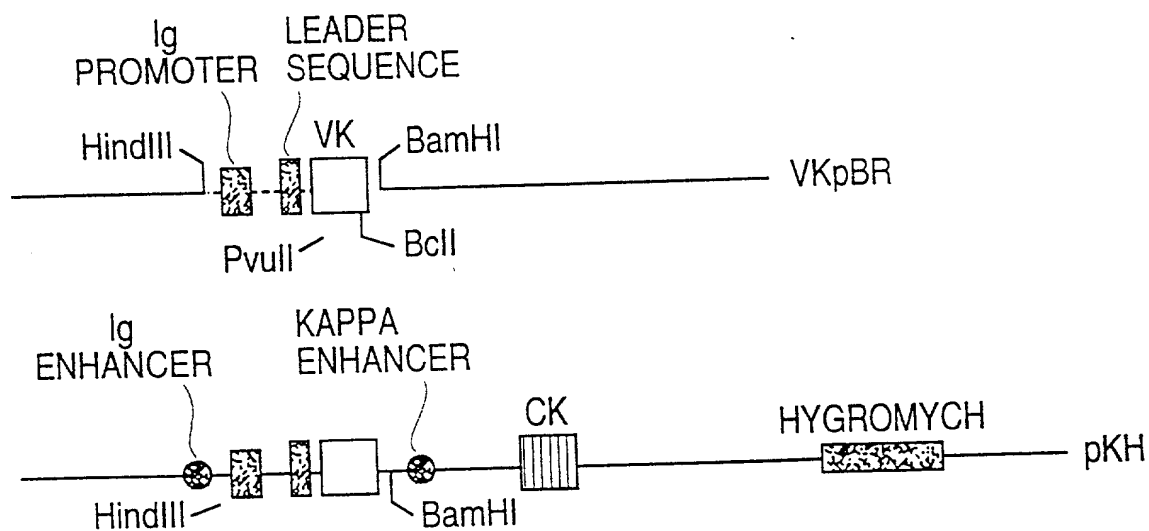
Inventor(s): Shui-on LEUNG et al.

Appl. No.: unassigned

**FIG. 2B**



**FIG. 3A**



**FIG. 3B**

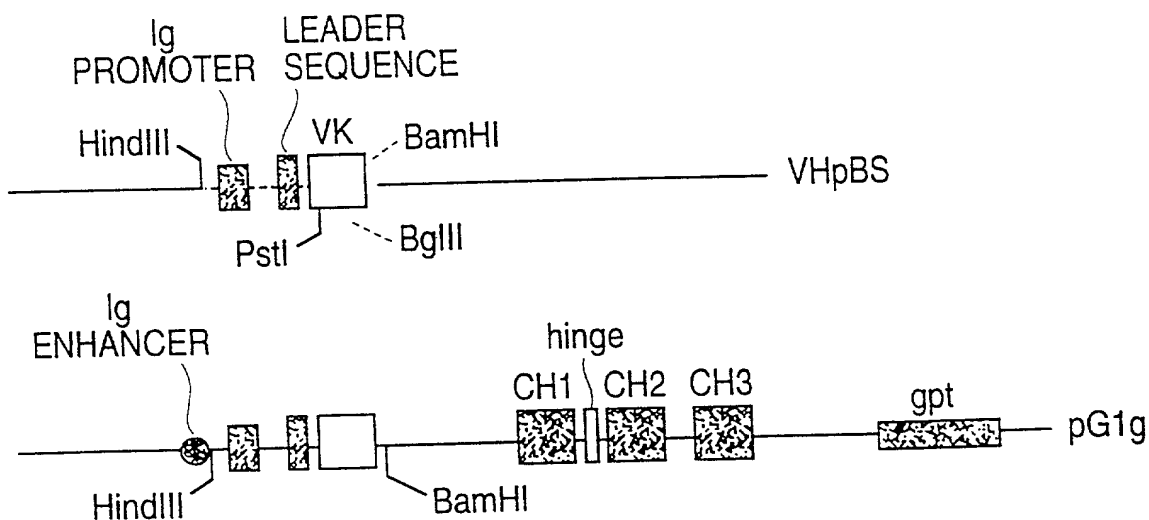


FIG. 4A

```

GACATTGAGCTGACCCAGTCTCCATCATCTCTGGCTGTGTCTGCAGGAGAAAACGTCACT
1-----+-----+-----+-----+-----+-----+-----+ 60
CTGTAAGTCGACTGGGTCAGAGGTAGTAGAGACCGACACAGACGTCCTCTTTTGCAGTGA

D I Q L T Q S P S S L A V S A G E N V T -
ATGAGCTGTAAGTCCAGTCAAAGTGTTTTATACAGTGCAAAATCACAAAGAACTACTTGGCC
61-----+-----+-----+-----+-----+-----+-----+ 120
TACTCGACATTCAGGTCAGTTTCACAAAATATGTCACGTTTAGTGTTCTTGATGAACCCGG

                                CDR1
M S C [K S S Q S V L Y S A N H K N Y L A] -
TGGTACCAGCAGAAACCGAGTCTCCTAACTGCTGATCTACTGGGCATCCACTAGG
121-----+-----+-----+-----+-----+-----+-----+ 180
ACCATGGTCGTCCTTTGGTCCCGTCAGAGGATTTGACGACTAGATGACCCGTAGGTGATCC

                                CDR2
W Y Q Q K P G Q S P K L L I Y [W A S T R] -
GAATCTGGTGTCCTGATCGCTTCACAGGCAGCGGATCTGGGACAGATTTTACTCTTACC
181-----+-----+-----+-----+-----+-----+-----+ 240
CTTAGACCACAGGGACTAGCGAAGTGTCCTCGCTAGACCCCTGTCTAAATGAGAATGG

[E S] G V P D R F T G S G S G T D F T L T -
ATCAGCAGAGTACAAGTTGAAGACCTGGCAATTTATTATTGTCAACCAATACCTCTCCTCG
241-----+-----+-----+-----+-----+-----+-----+ 300
TAGTCGTCTCATGTTCAACTTCTGGACCGTTAAATAACAGTGTTATGGAGAGGAGC

                                CDR3
I S R V Q V E D L A I Y Y C [H Q Y L S S] -
TGGACGTTTCGGTGGAGGGACCAAGCTGGAGATCAAACGT
301-----+-----+-----+-----+-----+-----+-----+ 339
ACCTGCAAGCCACCTCCCTGGTTCGACCTCTAGTTTGCA

[W T] F G G G T K L E I K R -

```

FIG. 4B

CAGGTCCAGCTGCAGGAGTCAGGGCTGAACTGTCAAAACCTGGGGCCCTCAGTGAAGATG + 60  
1-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
GTCCAGGTCGACGTCCTCAGTCCCGACTTGACAGTTTGGACCCCGGAGTCACCTCTTAC  
Q V Q L Q E S G A E L S K P G A S V K M -  
TCCTGCAAGGCTTCTGGCTACACCTTTACTAGCTACTGGCTGCACCTGGATAAAACAGAGG + 120  
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
61 AGGACGTTCCGAAGACCGATGTGAAATGATCGATGACCGACGTGACCTATTTGTCTCC  
CDR1  
S C K A S G Y T F T [S Y W L H] W I K Q R -  
CCTGGACAGGCTCTGGAATGGATTGGATACATTAATCCTAGGAATGATTATCTAGTAC + 180  
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
121 GGACCTGTCCCAGACCTTACCTAACCTATGTAATTAGGATCCTTACTAATAATGACTCATG  
CDR2  
P G Q G L E W I G Y I N P R N D Y T E Y -  
AATCAGAACTTCAAGGACAAGGCCACATTGACTGCAGACAAATCCTCCAGCACAGCCTAC + 240  
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
181 TTAGTCTTGAAGTTCTGTTCCTGGTGTAACGTGACGCTGTTAGGAGGTCGTGTCGGATG  
[N Q N F K D] K A T L T A D K S S T A Y -  
ATGCAACTGAGCAGCCTGACATCTGAGGACTCTGCAGTCTATTACTGTGCAAGAAGGAT + 300  
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
241 TACGTTGACTCGTCGGACTGTAGACTCCTGAGACGTCAGATAATGACACGTTCTTCCCTA  
M Q L S S L T S E D S A V Y Y C A R [R D] -  
ATTACTACGTTCTACTGGGCCAAGCACCACTCTCACAGTCTCCTCG + 348  
-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+  
301 TAATGATGCAAGATGACCCCGGTTCCGTGGTGAGAGTGTACAGAGGAGC  
CDR3  
[I T T F Y] W G Q G T T L T V S S -

FIG. 5A

GACATCCAGCTGACCCAGTCTCCATCATCTCTGAGCGCATCTGTTGGAGATAGGGTCACT  
1-----+-----+-----+-----+-----+-----+-----+ 60  
CTGTAGGTCGACTGGGTCAGAGGTAGTAGAGACTCGCGTAGACAACTCTATCCCAGTGA  
D I Q L T Q S P S S L S A S V G D R V T -  
ATGAGCTGTAAGTCCAGTCAAAGTGTTTTATACAGTGCAAAATCAACAAGAACTACTTGGCC  
61-----+-----+-----+-----+-----+-----+-----+ 120  
TACTCGACATTCAGGTCAGTTTCACAAAATATGTCACGTTTAGTGTCTTGTGATGAACCGG  
CDR1  
M S C K S S Q S V L Y S A N H K N Y L A -  
TGGTACCAGCAGAAACCAGGAAAGCACCTAAACTGCTGATCTACTGGGCATCCACTAGG  
121-----+-----+-----+-----+-----+-----+-----+ 180  
ACCATGGTCGTCCTTGGTCCCTTTCGTGGATTGACGACTAGATGACCCGTTAGTGATCC  
CDR2  
W Y Q Q K P G K A P K L L I Y W A S T R -  
GAATCTGGTGTCCCTTCGGATTCTCTGGCAGCGGATCTGGGACAGATTCTTACTTTCACC  
181-----+-----+-----+-----+-----+-----+-----+ 240  
CTTAGACACACAGGGAAGCGCTAAGAGACCGTCGCCCTAGACCCCTGTCTAAAATGAAAGTGG  
E S G V P S R F S G S G S G T D F T F T -  
ATCAGCTCTCTTCAACCAGAAAGACATTGCAACATATTATTGTCACCAATACCTCTCCTCG  
241-----+-----+-----+-----+-----+-----+-----+ 300  
TAGTCGAGAGAAAGTTGGTCTTCTGTAACGTTGTATAATAACAGTGGTTATGGAGAGGAGC  
CDR3  
I S S L Q P E D I A T Y Y C H Q Y L S S -  
TGGACGTTTCGGTGGAGGGACCAAGGTGCAGATCAAACGT  
301-----+-----+-----+-----+-----+-----+-----+ 339  
ACCTGCAAGCCACCTCCCTGGTTCACGCTCTAGTTTGA  
W T F G G G T K V Q I K R

Inventor(s): Shui-on LEUNG et al.  
Appl. No.: unassigned

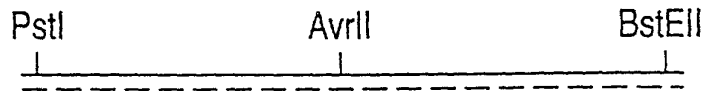
**FIG. 5B**

CAGGTCAGCTGGTCCAATCAGGGGCTGAAGTCAAGAAACCTGGGTCAATCAGTGAAGGTC  
 1 - - - - - + - - - - - + - - - - - + - - - - - + - - - - - + - - - - - + 60  
 GTCCAGGTCGACCGGTTAGTCCCGACTTCAGTTCCTTGGACCCAGTAGTCACTTCCAG  
 Q V Q L V Q S G A E V K K P G S S V K V -  
 TCCTGCAAGGCTTCTGGCTACACCTTTACTAGCTACTGGCTGCACCTGGGTCAGGCAGGCA  
 120  
 61 - - - - - + - - - - - + - - - - - + - - - - - + - - - - - + - - - - - +  
 AGGACGTTCCGAAGACCGATGTGGAAATGATCGATGACCGACGTGACCCAGTCCCGTCCGT  
 CDR1  
 S C K A S G Y T F T S Y W L H W V R Q A -  
 CCTGGACAGGCTCTGGAATGGATTGGATACATAATCCTAGGAATGATTATATACTAGTAC  
 180  
 121 - - - - - + - - - - - + - - - - - + - - - - - + - - - - - + - - - - - +  
 GGACCTGTCCCAGACCTTACCTAACCTATGTAATTAGGATCCTTACTAATATGACTCATG  
 CDR2  
 P G Q G L E W I G Y I N P R N D Y T E Y -  
 AATCAGAACTTCAAGGACAAGGCCACAATAACTGCAGACGAATCCACCAATACAGCCTAC  
 240  
 181 - - - - - + - - - - - + - - - - - + - - - - - + - - - - - + - - - - - +  
 TTAGTCTTGAAGTTCCTGTTCGGGTGTTATTGACGCTGCTTAGGTGTTATGTCGGATG  
N Q N F K D K A T I T A D E S T N T A Y -  
 ATGGAGCTGAGCAGCCTGAGGTCTGAGGACACGGCATTTTATTTTGTGCAAGAAGGAT  
 300  
 241 - - - - - + - - - - - + - - - - - + - - - - - + - - - - - + - - - - - +  
 TACCTCGACTCGTCGGACTCCAGACTCCTGTGCCGTAAAAATAAACACGTTCTTCCCTA  
 M E L S S L R S E D T A F Y F C A R R D -  
 ATTACTAGTTCTACTGGGCCAAGGCACCGTCAACCGTCTCCTCG 348  
 301 - - - - - + - - - - - + - - - - - + - - - - - + - - - - - + - - - - - +  
 TAATGATGCAAGATGACCCCGGTTCCGTGGTGCCAGTGGCAGAGGAGC  
 CDR3  
I T T F Y W G Q G T T V T V S S -

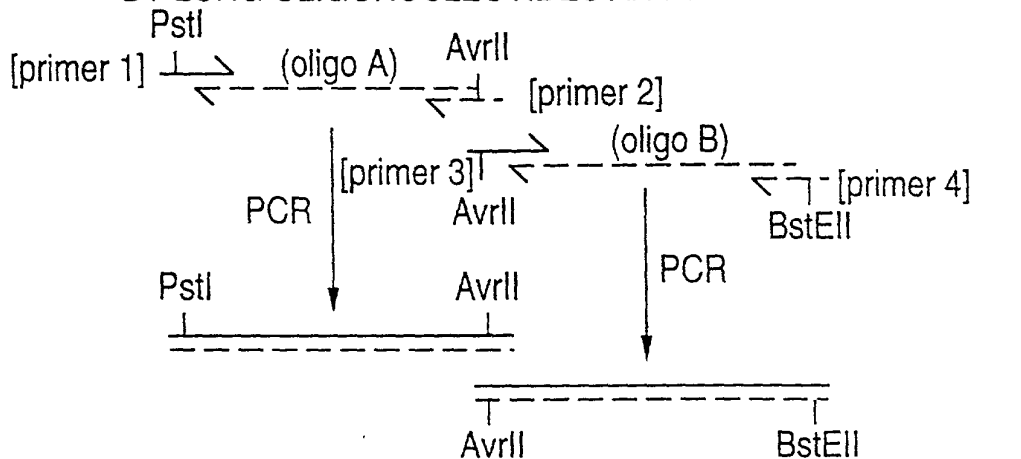


**FIG. 6**

DESIGNED SEQUENCE FOR HUMANIZED LL2 VH DOMAIN:



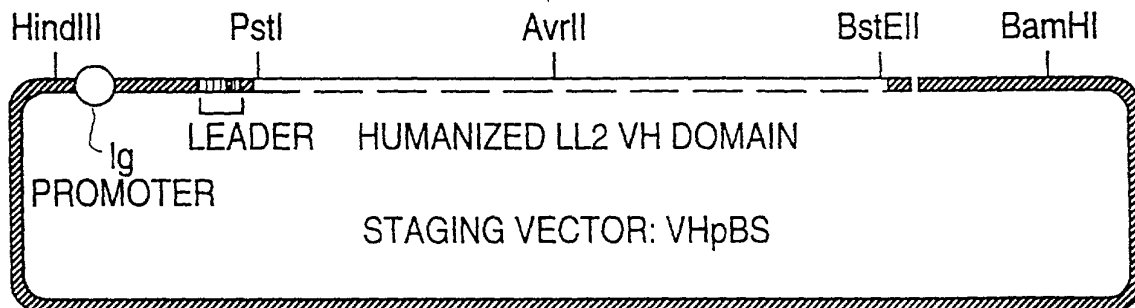
CONSTRUCTION OF THE HUMANIZED LL2 VH DOMAIN  
BY LONG OLIGONUCLEOTIDES AND PCR:



PstI/AvrII DIGESTION

BstEII/AvrII DIGESTION

LIGATION TO THE PstI/BstEII  
SITES OF THE HEAVY CHAIN  
STAGING VECTOR: VH<sub>pBS</sub>

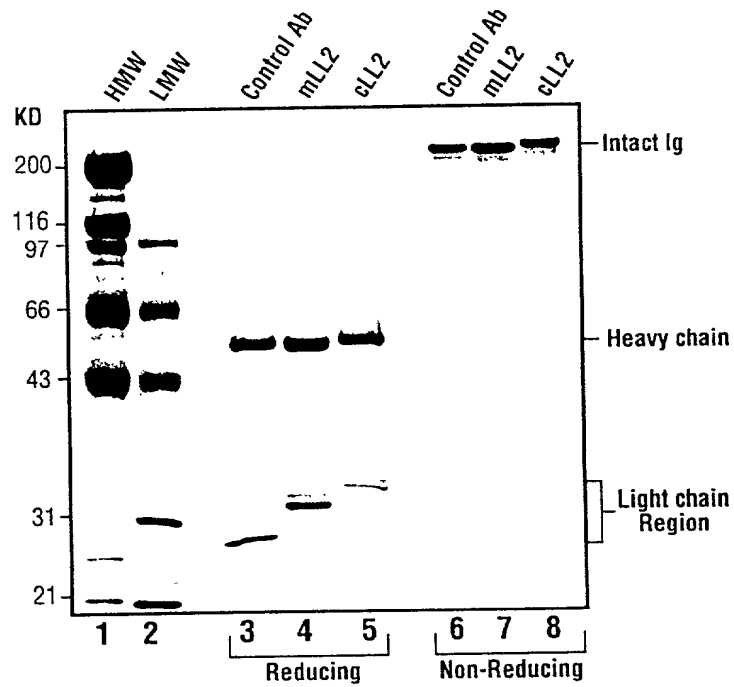


Title: IMMUNOCONJUGATES AND  
HUMANIZED ANTIBODIES SPECIFIC  
FOR B-CELL LYMPHOMA AND  
LEUKEMIA CELLS

Inventor(s): Shui-on LEUNG et al.

Appl. No.: unassigned

FIG. 7



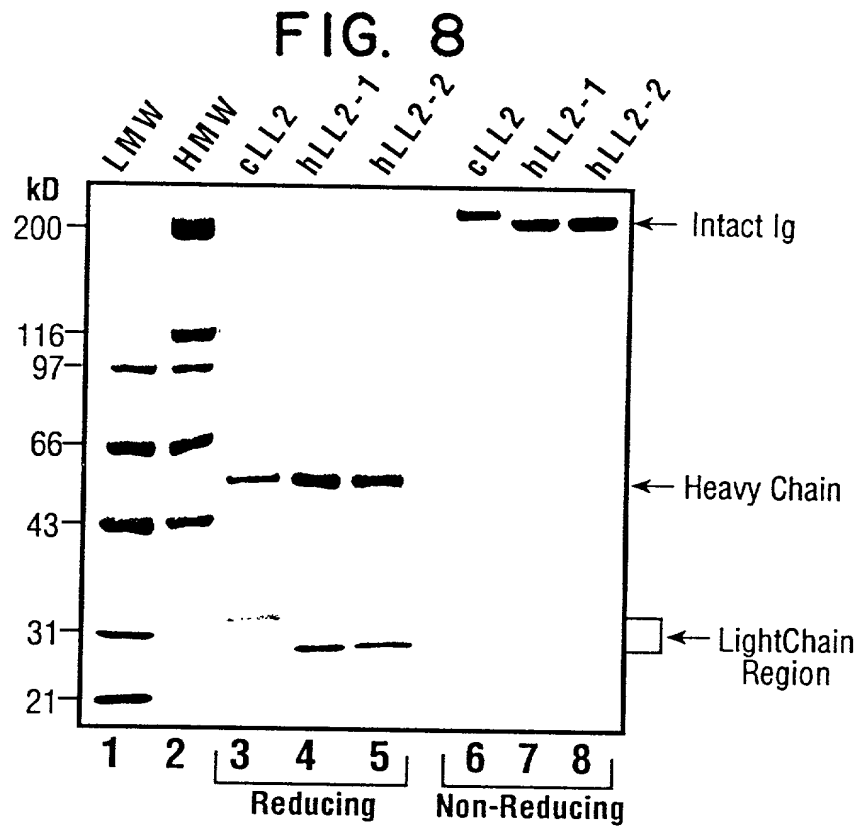
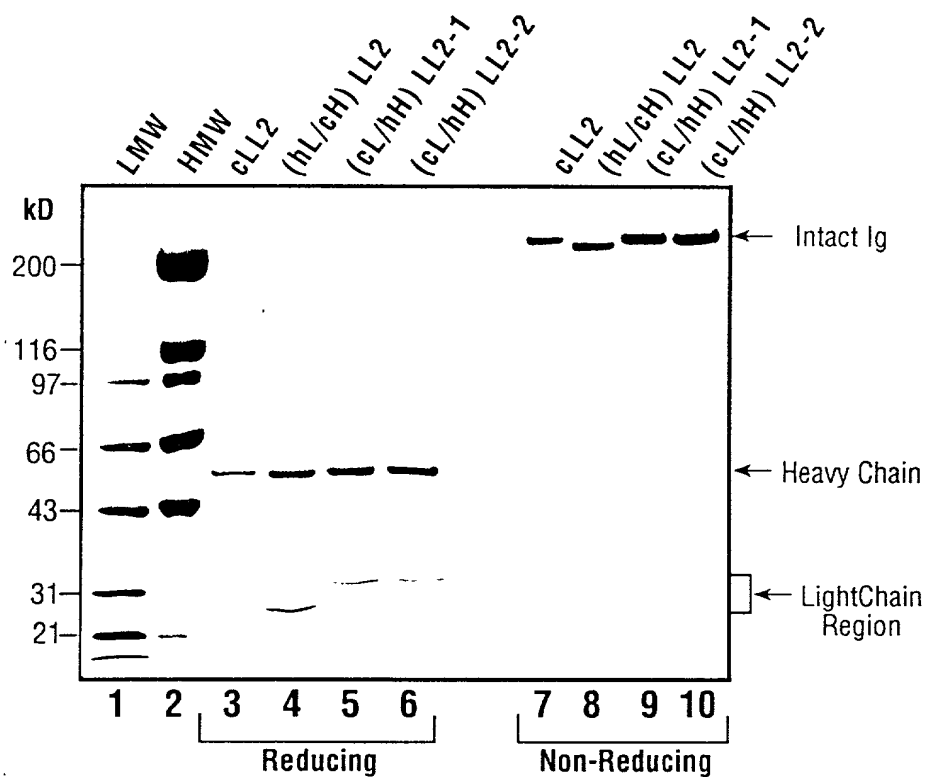


FIG. 9

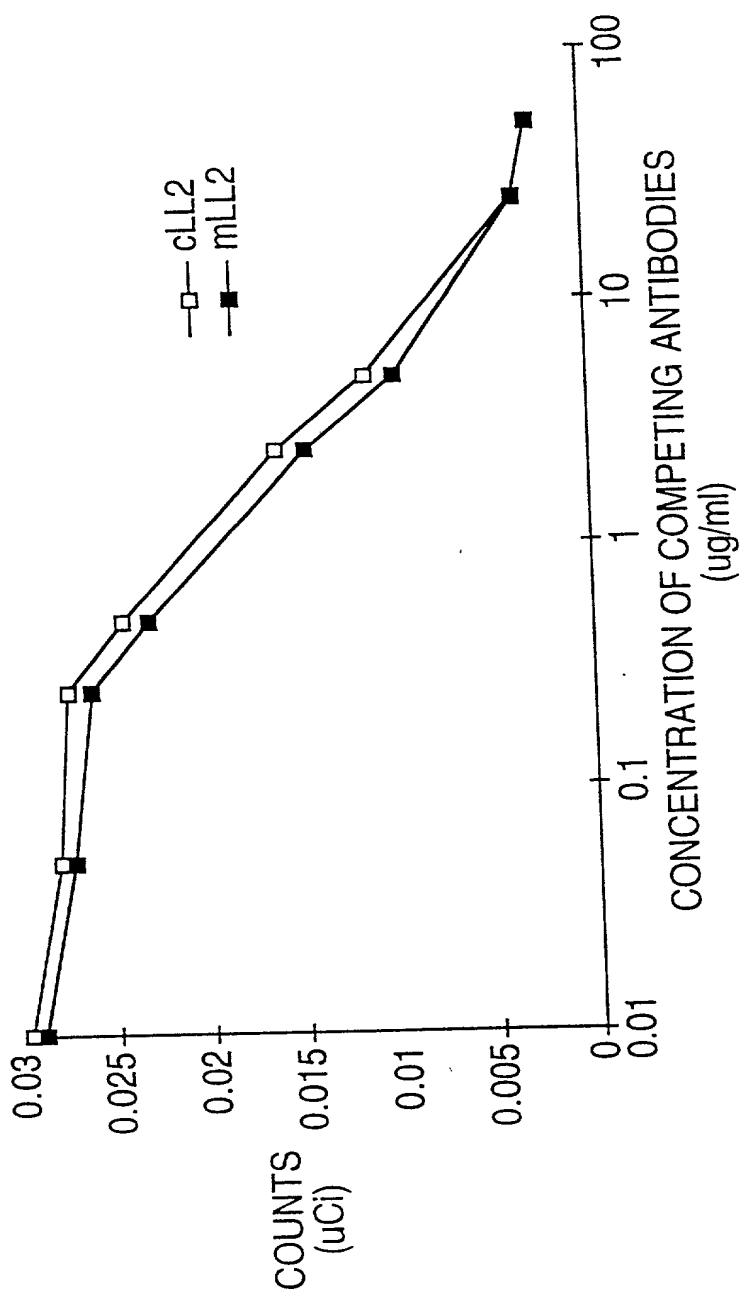


Title: IMMUNOCONJUGATES AND  
HUMANIZED ANTIBODIES SPECIFIC  
FOR B-CELL LYMPHOMA AND  
LEUKEMIA CELLS

Inventor(s): Shui-on LEUNG et al.

Appl. No.: unassigned

FIG. 10

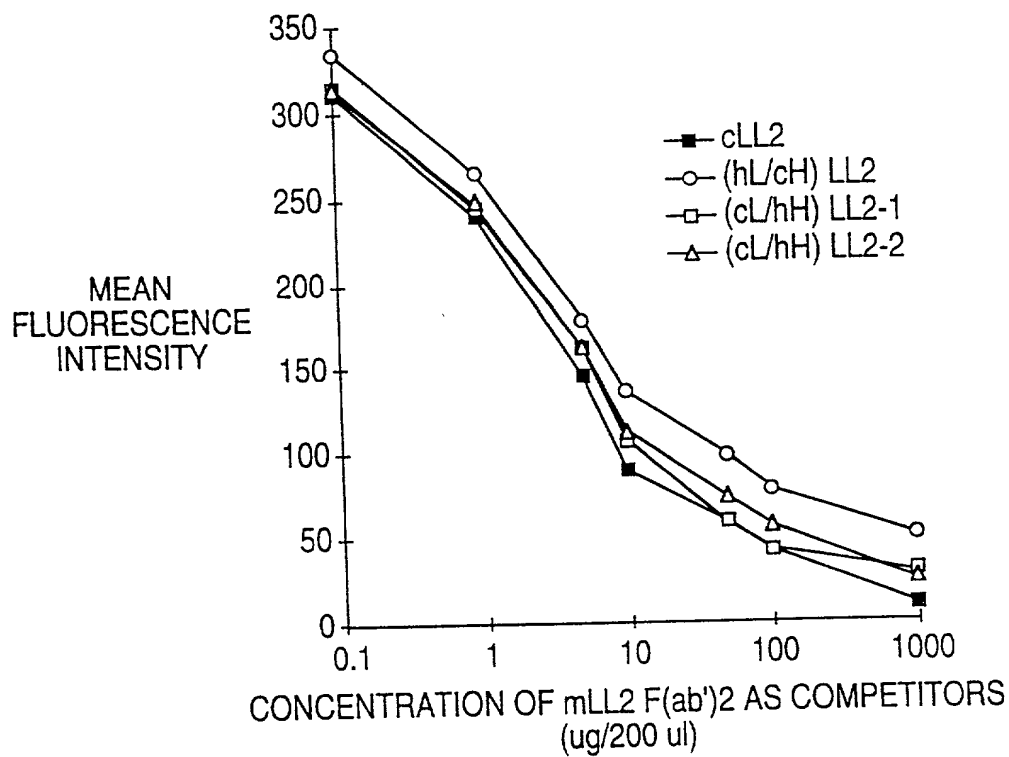


Title: IMMUNOCONJUGATES AND  
HUMANIZED ANTIBODIES SPECIFIC  
FOR B-CELL LYMPHOMA AND  
LEUKEMIA CELLS

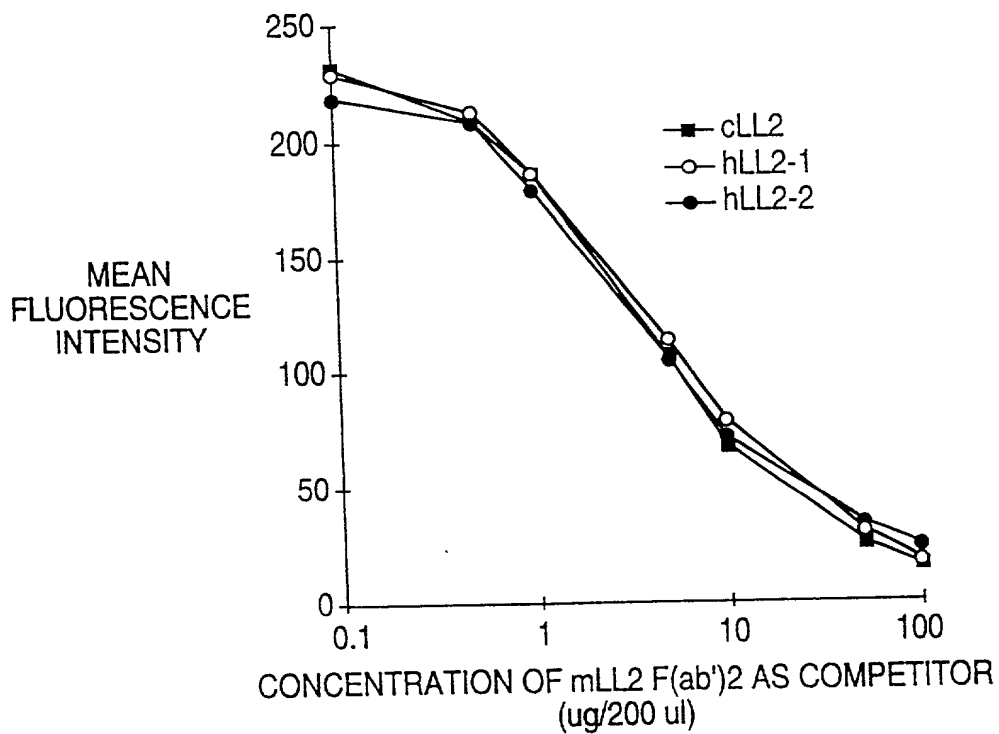
Inventor(s): Shui-on LEUNG et al.

Appl. No.: unassigned

**FIG. 11A**



**FIG. 11B**



**FIG. 12**

INTERNALIZATION: c-LL2. h-LL2 vs. m-LL2 IN RAJI CELLS

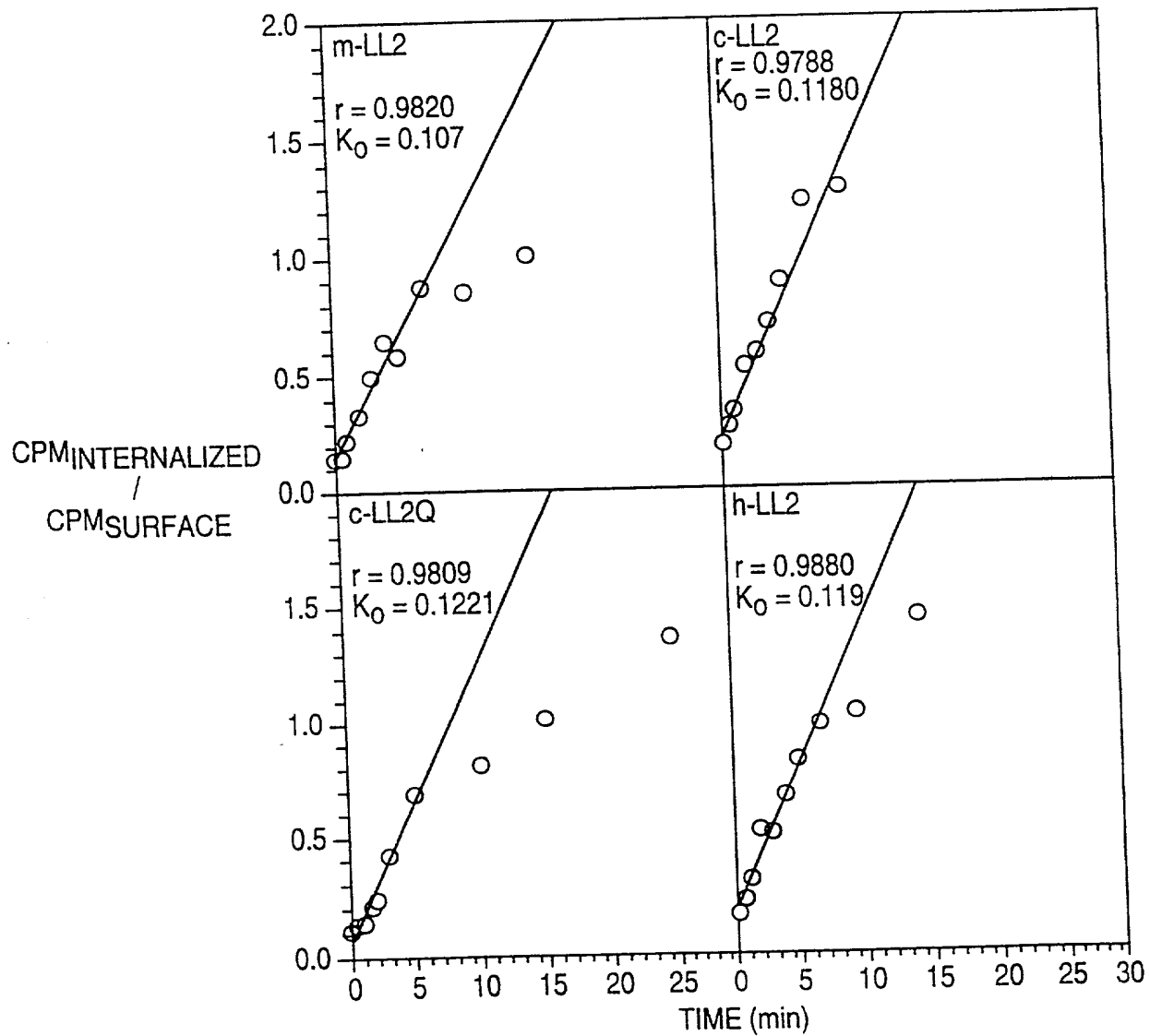


FIG. 13

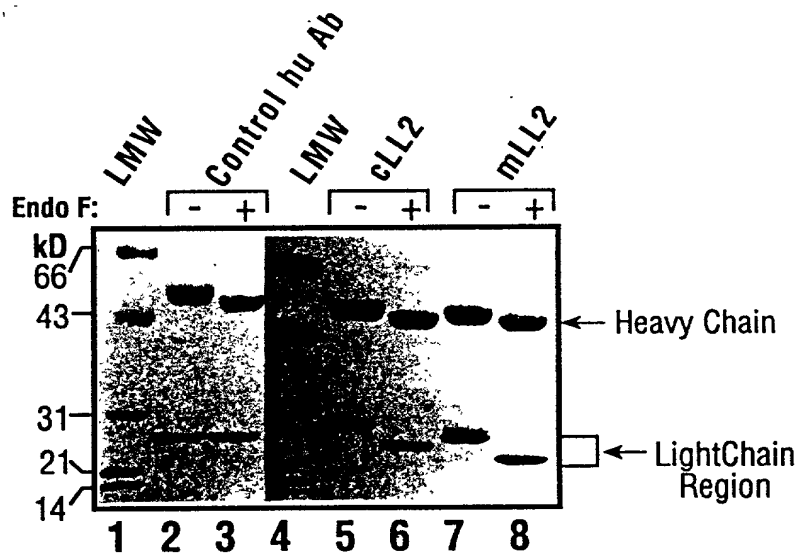




FIG. 14

